

Triflex waterproofing and coating







# X

### Dear Reader,

These Triflex instructions for use are designed to assist you in the use of Triflex systems and products in actual practice. This manual provides information on application technique and quickly answers any questions that may arise on the construction site.

All the steps involved, from priming to waterproofing, coating and finishing, are presented on the basis of standard procedures rather than for each individual system. The methods of substrate testing and preparation as well as detail and area application are shown as examples for flat roof waterproofing, balcony and terrace waterproofing and coating.

The instructions for use provide a quick overview of correct application of Triflex products on site, and illustrate solutions to possible problems. Should you have any questions that cannot be answered by these instructions for use, our applications engineers or the technical hotline are available to you for advice. Feel free to get in touch.

Your Triflex team



#### Please note:

All the processing details are standardised application examples. The specifications and instructions do not relieve planners and contractors from their responsibility to test the products and systems independently for their suitability and for the specific construction application in each individual case, and their compatibility with the applicable standards. Furthermore, the specific Triflex system descriptions must also be observed and adhered to.

Triflex GmbH & Co. KG reserves the right to make changes to the technical specifications resulting from the further development of the products and systems or from current construction practice.

4

### Table of contents

#### The fundamentals

X	

nentais	
General information	
Work safety	
Work preparation	
Work interruption	
Product information	

8

46 48

50 52 54

58 60 62

#### Substrate

Preparation	20
Testing	21
Pretreatment	23
Repairs	27
Adhesive strength test	28
Dew point temperature	31

#### Preparation

	2-comp. products with catalyst (PMMA)	34
7	3-comp. products with catalyst (PMMA)	35
•	2-comp. products with hardener (PUR and EP)	36
	1-comp. products (PUR)	38
	Liquid catalyst	40
	Fleece precuts and mouldings	42

#### Priming



PMMA primer	
EP primer	
Metal substrates	
Glass substrates	
Triflex SmartTec	

#### Detail waterproofing



unus of in a
erproofing
Wall junction
Inner and outer corners
Drain
Vent
Rooflight dome
Construction joint
Settlement joint
Railing post with front edge
Balcony edge finishing profile

	Eaves edge finishing Step profile French window	87 90
	French window Triflex SmartTec	92 94
		5.
Area wate		00
	Area waterproofing Area coating / wearing layer	98 100
K	/ aca coating / wearing layer	100
Finishing		
	Finishing	104
	Finish	
and the	"Without infill" / Standard	105
	Finish with "Chips Design" Finish with "Infill, fine"	106
	Finish with "Infill, coarse"	108 109
	Finish with "Colour Design"	109
	Finish with "Creative Design"	110
	Finish with "Stone Design"	118
Aneiller:		
Ancillary s	ystems Uncoupling with Triflex ProDrain	124
	Thermal insulation with Triflex BIS	124
Troublesho	otina	
	Problem – Cause – Solution	132
	•	
What you i	need to know	
(ret)	Disposal	142
×	Environmental compatibility	142
60.00	Maintenance and care instructions	143
	Contact	144
	Trifley Instructions for u	co 09/2022



The fundamentals

Substrate

Preparation

Priming

Details

Surrounding area

Finishing

Special systems

Troubleshooting

Knowledge

Triflex Instructions for use 08/2023



### The fundamentals









#### Simple and clear

Ô

These Triflex instructions for use provide simple and clear instructions and tips regarding application on site. The individual steps are explained with short and concise bullet points and illustrations. Symbols offer quick guidance.

#### **Useful information**



Facts worth knowing to help you in your day-to-day work.

#### Important notes



The instructions for use supplement the system-specific planning documents, product information and safety data sheets. Our applications engineers have summarised the most important information here.

#### Symbols



Recurring symbols identify the work steps at a glance.

#### Helpful tips

### Profi-Tipp

Our applications engineers share their many years of experience with you in the form of tips and tricks.

If you have any specific questions, the Triflex team will be happy to assist you.



Symbol	Job
Ŀ	Measuring (distance)
<b>H</b>	Measuring (quantity)
	Smoothing off (surface with filler)
< aligned with the second seco	Dampening
	Interrupting work
$\bigcirc$	Continuing work / material can be processed again
₽↓	Shaking
	Dabbing
Š	Curing
	Aligning
$\rightarrow$	Smoothing down
	Ventilating
$\bigcirc$	Embedding free of air bubbles
	Pressing down
	Blowing in
ÌÍ	Embedding / integrating
<u></u>	Draining
; <u> </u>	Documenting
(	Folding / turning over
	Sweeping

Symbol	Job
{·o·}	Scarifying
$\langle \chi \rangle$	Pouring / tipping out
	Gluing
Ó	Adding spoonfuls
Ø	Noting / marking
$\bigcirc$	Stirring
Ľ	Infill with sand
$\square$	Cleaning
	Grinding/sanding
đ	Cutting
<u>d</u>	Removing grit
	Transfer to another receptacle
	Substrate sampling
$\overleftarrow{\bigcirc}$	Filling
${\longleftrightarrow}$	Spreading crosswise and lengthwise
and <sup>is</sup>	Plugging
$\bigcirc$	Saturating fleece
	Pulling off
E	Joining



Symbol	Parameter
$\left \longleftrightarrow\right $	Spacing
۹۲۶	Alternatives
<b>F</b>	Personal protection
•	Work safety
kg	Strength / pressure / compressive strength
	Components
၂၉ 	Vapour barrier
$\checkmark$	Diameter
	Moisture
¢⊄ تتتا اتت	Joint
$\bowtie$	Gradient
	Adhesive tensile strength
	Information
$\widehat{\Box}$	Storage
?	Problem / question
$\bigcap_{i,i}$	Rain / rainproof
Na	Salt content
×.	Sunlight
٩	Dew point

Symbol	Parameter
<u> </u>	Partial quantity
J	Temperature
<u>• •</u>	Transport
-☆- 	Substrate
ri Lis	Consumption / quantity
	Soiling
<u>r⁄</u>	Finishing / priming
555555	(depending on context)
r t	Preparation
	Tools
$\overline{\bigcirc}$	Time

Symbol	Machines
L'	Concrete grinder
$\bigcirc$	Diamond disc
¢.	Hand-held circular saw
<b>J</b> °°°°°	Shotblaster
	PU gun
WHICE S	Power stirrer
<b>V</b>	Sandblaster
	Funnel spray gun
197	Angle grinder





Triflex makes high-quality liquid-applied waterproofing and coating systems. They require careful application with suitable tools. We explain in detail what tools you will need and for which work steps they are used.

Symbol	Tool/work material
	Pressure roller
H	Carpet knife
10	Bucket (with size marking)
X	Container
Ŕ	Smoothing trowel
<i>J</i> >>	Hammer
	Sandpaper

Symbol	Tool/work material
9	Adhesive tape
573	Brush
Ô	Round sealing cord
æ	Scissors
Ŗ	Filler
	Vacuum cleaner
	Universal roller
O-	Underlay
$\overline{\mathbb{N}}$	Fleece moulding
0	Fleece circular precut
0	Fleece roller
(A)	Notched trowel



The Triflex range only includes tools that enable you to achieve a high-quality result. To get started, we recommend the Triflex ToolBox, which contains the most important tools.

### The fundamentals – Work safety



Safe work, optimum protection. We want to raise awareness among employers and workers for more occupational health and safety on construction sites. When handling PMMA products, there is a large number of requirements to comply with.

#### Hazardous substances



With the diamond-shaped labelling of the hazardous substance symbols according to CLP (= classification and labelling of products), the user is made aware of possible hazards that may occur when handling the product.

If you have any queries please contact: Environment and Safety Department, Tel. +49 571 9339-176

#### Safety data sheet



The safety data sheet (SDS) provides the user of chemical agents with information on safe handling, health and environmental hazards and chemical-physical properties. At Triflex, the current SDS version is automatically transmitted electronically. As such, you will immediately receive possible changes to the products you have purchased by email.

#### Work safety

When working with products containing construction chemicals, the following protective measures must be adhered to:



- Avoid contact with eyes and skin.
- · Keep away from food and beverages.
- Always wear personal protective clothing.

Do not smoke, eat or drink while working.

· Always observe safety data sheets.

#### Personal protective equipment



Personal protective equipment includes body protection (long arm and leg clothing, optional protective overalls), hand protection, eye protection and respiratory protection. In the event of contact with the product, change gloves after the penetration time has elapsed. Safety goggles or a face shield should be worn to protect the eyes from splashes. Have an eye wash bottle ready in case of emergency. Respiratory protection should be worn when working indoors



When transporting, storing and working with these products, always observe the safety data sheets and technical codes of practice, the container labelling, and also the hazard warnings and safety advice on the containers.

All safety data sheets are also available at: www.gefkomm-bau.de

### Triflex waterproofing and coating

### Instructions for use

### The fundamentals – Work safety

#### Planning and implementation of waterproofing



Before you start work, the site should be surveyed to determine any potential impact on the surrounding area. During the reaction time of PMMA resins, the monomer methyl methacrylate is released by evaporation. The low odour threshold means that it creates a strong smell even at low concentrations. Additional measures may be required to reduce the odour in surrounding rooms, e.g.:

- Close or shut down all indoor air circulation (through ventilation systems and ducts, shafts, etc.).
- Keep windows and doors of surrounding rooms closed and, if necessary, mask them airtight.



The mixing station should be outdoors and well ventilated. Depending on the conditions, an extractor unit or a fan can be used in addition. Mixing Triflex products indoors should generally be avoided.



Curing of polymethyl methacrylate resins (PMMA) requires a constant air exchange, which is available when working outdoors. If ventilation is insufficient, 7 air changes per hour are required. If any chemical problems occur as a result of inadequate ventilation, take the following steps:

- Remove any areas that have failed to cure fully.
- Clean defective spots with Triflex Cleaner.
- Observe the airing time of approx. 20 to 25 minutes.
- Grind off defective spots down to the substrate.
- Perform the work step again.
- · Observe the adjoining areas when waterproofing.

#### Transport



Triflex products are usually classified as dangerous goods that are subject to special requirements for transportation. Opened containers must be sealed before transport and always secured with a split pin.

#### Storage



In Germany, special attention must be paid to TRGS 510 for the storage of hazardous substances in non-stationary containers. This Technical Rule for Hazardous Substances specifies strict storage requirements for quantities of 200 kg or more of flammable liquids.

Brochure: "Transport of hazardous materials, the small quantity regulation in the building industry" from BG Bau Brochure: "Storage of hazardous materials on construction sites" from BG Bau

www.bgbau.de



### The fundamentals – Work preparation



In order to guarantee the desired Triflex quality, certain working conditions must be adhered to, including cleanliness of working, mixing and filling areas, suitable temperature ranges and compliance with waiting and consumption (coverage) specifications.

#### **General notice**



Triflex guarantees the consistently high quality of its products. However, it is important that no products from other manufacturers are used with Triflex systems. Given the wide variety of on-site requirements and conditions, the user is required to test the product's suitability for the particular purpose. Technical information is subject to change without notice in the interests of technical advancement or enhancement of our products.

#### Conditions for use



Triflex products can be used within the temperature ranges stipulated on the container label and in the product information.

#### Consumption and waiting times



The specified consumption (coverage) figures apply only to smooth, even surfaces. Special allowance must be made for unevenness, roughness and porosity.

Specified airing times and waiting times assume a substrate temperature and ambient temperature of **+20** °C.

#### **Clean working environment**



The areas used for mixing and transferring products to other containers must be covered with a suitable plastic sheet (e.g. PE sheet) before work commences. If resin components without hardener are splashed onto the substrate that is being coated, they will impair the curing reaction.

### The fundamentals – Work interruptions



If work is interrupted and / or contamination by rain etc. occurs, certain precautions must be taken to complete the waterproofing.

#### Cleaning workplace and tools



Tools must be cleaned thoroughly with Triflex Cleaner on completion of the work or when work is interrupted for extended periods. Wait for **approx. 20 to 25 minutes** for the cleaner to air before using the tool again.

#### What to do if work is interrupted



If work is interrupted for **more than 12 hrs.**, or if soiled by rain etc., the junction must be activated with Triflex Cleaner. Airing time **at least 20 mins** 

Junctions with subsequent waterproofing must overlap, including Triflex Special Fleece, by a **minimum of 10 cm**. This also applies to junctions, transitions and detail solutions with Triflex ProDetail.

The finish must be applied within **24 hrs.** If it is applied later than this, the surface must first be activated with Triflex Cleaner.

#### Rain during the cure time



Dry the substrate. Check the affected areas for defects. Remove any defective spots with Triflex Cleaner. Allow an airing time of **approx. 20 to 25 mins**. Abrade the defective spots thoroughly. If necessary, perform the work step again after appropriate pretreatment.

#### Storage



Keep containers tightly sealed. Containers must be stored in a dry, cool (but frost-free) and well ventilated place. Protect against heat and direct sunlight. Shelf life at least **6 months**. The specifications in the product information apply. Store containers at room temperature prior to use where possible.





### The fundamentals – Product information

Triflex products	Resin base	Pack size <sup>1</sup>	Volume	Pot life <sup>2</sup>	Rainproof <sup>2</sup>	Recoating <sup>2</sup>	Strength <sup>2</sup>	
		X	ri Lis	$\bigcirc$	$\bigcirc$	$\bigcirc$	kg	
Primers								
Triflex Bitumen Blocker	-	10.00 kg	0.40 kg/m <sup>2</sup>			approx. 3 h		
Triflex Cryl Primer 222	PMMA	10.00 kg	0.40 kg/m <sup>2</sup>	approx. 15 mins	approx. 25 mins	approx. 45 mins	approx. 2 h	
Triflex Cryl Primer 276	PMMA	10.00 kg	0.40 kg/m <sup>2</sup>	approx. 15 mins	approx. 25 mins	approx. 45 mins	approx. 2 h	
Triflex Cryl Primer 280	PMMA	10.00 kg	2 x 0.40 kg/m <sup>2</sup>	approx. 10 mins	approx. 20 mins	approx. 45 mins	approx. 2 h	
Triflex Cryl Primer 287	PMMA	10.00 kg	0.35 kg/m <sup>2</sup>	approx. 15 mins	approx. 25 mins	approx. 45 mins	approx. 2 h	
Triflex Glass Primer	-	0.751	0.05 l/m <sup>2</sup>			approx. 15–180 mins		
Triflex Metal Primer	-	0.401/3.001	0.15 l/m <sup>2</sup>			approx. 60 mins		
Triflex Pox Primer 116+	EP	25.00 kg	0.30 kg/m <sup>2</sup>	approx. 15 mins		approx. 12–24 h	approx. 7 days	
Triflex Pox R 100	EP	1.00 / 8.00 kg	0.30 kg/m <sup>2</sup>	approx. 30 mins	approx. 8 h	approx. 12 h	approx. 24 h	
Triflex Pox R 103	EP	7.80 kg	0.30-0.50 kg/m <sup>2</sup>	approx. 15 mins	approx. 8 h	approx. 12 h	approx. 24 h	
Triflex Primer 610	-	0.101/0.501	40-80 g/m <sup>2</sup>		approx. 20 mins	approx. 20 mins		
Triflex Primer 791	-	0.60 kg	0.20 kg/m <sup>2</sup>			approx. 40 mins		
Triflex TecGrip 620	-	0.501	0.10 l/m <sup>2</sup>			approx. 25 mins		
Triflex Than Primer 533	PUR	0.401	0.10 l/m <sup>2</sup>	20 mins–12 h				
Triflex Towersafe Primer	PMMA	10.00 kg	0.40 kg/m <sup>2</sup>	approx. 15 mins	approx. 25 mins	approx. 45 mins	approx. 2 h	
Repairs								
Triflex Asphalt Repro 3K	PMMA	16.00 / 28.00 kg	2.00 kg/m <sup>2</sup> /mm	approx. 10 mins approx. 25 m			approx. 30 mins	
Triflex Concrete Repro 3K	PMMA	28.00 kg	2.00 kg/m <sup>2</sup> /mm	approx. 10 mins	approx. 25 mins		approx. 30 mins	
Triflex Cryl Level 215+	PMMA	300.00 kg	2.20 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 30 mins	approx. 45 mins	approx. 1 h	
Triflex Cryl RS 240	PMMA	22.25 kg	2.20 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 30 mins	approx. 45 mins	approx. 1 h	
Triflex Cryl RS 242	PMMA	22.25 kg	2.20 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 45 mins	approx. 1 h	approx. 2 h	
Triflex Cryl Paste	PMMA	5.00 / 15.00 kg	1.40 kg/m <sup>2</sup> /mm	approx. 10 mins	approx. 30 mins	approx. 1 h		
Triflex Easy Repair Set Asphalt	PMMA	11.25 kg	2.00 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 30 mins		approx. 45 mins	
Triflex Easy Repair Set Concrete	PMMA	11.25 kg	2.00 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 30 mins		approx. 45 mins	
Triflex Pox Mortar	EP	8.00 / 25.00 kg	2.20 kg/m <sup>2</sup> /mm	approx. 20 mins	approx. 8 h	approx. 12 h	approx. 7 days	
Waterproofers								
Triflex ProDetail	PMMA	15.00 kg	3.00 kg/m <sup>2</sup>	approx. 25 mins	approx. 30 mins	approx. 45 mins		
Triflex ProFibre	PMMA	5.00 / 10.00 kg	3.00 kg/m <sup>2</sup>	approx. 20 mins	approx. 30 mins	approx. 45 mins		
Triflex ProPark	PMMA	25.00 kg	3.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 1 h	approx. 1 h	approx. 3 h	
Triflex ProTect	PMMA	20.00 kg	3.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 45 mins	approx. 2 h	
Triflex ProTerra	PMMA	10.00 kg	3.00 kg/m <sup>2</sup>	approx. 15 mins approx. 45 mins		approx. 1 h	approx. 3 h	
Triflex ProThan	PUR	25.00 kg	3.00 kg/m <sup>2</sup>	approx. 30 mins	approx. 2 h	approx. 12 h		
Triflex ProThan Detail	PUR	8.00 kg	3.00 kg/m <sup>2</sup>	approx. 30 mins	approx. 2 h	approx. 12 h		
Triflex SmartTec	PUR	7.00 / 14.00 kg	3.00 kg/m <sup>2</sup>	approx. 60 mins	approx. 60 mins	approx. 8 h	approx. 2 days	
Triflex SmartTec Fibre	PUR	3.50 kg	3.00 kg/m <sup>2</sup>		approx. 60 mins	approx. 8 h	approx. 2 days	
Triflex Than R 557	PUR	25.00 kg	3.00 kg/m <sup>2</sup>	approx. 30 mins	11 1 1 1 1 1	approx. 12 h	approx. 2 days	
Triflex Than R 557 thix	PUR	25.00 kg	3.00 kg/m <sup>2</sup>	approx. 30 mins		approx. 7 h	approx. 3 days	
Triflex Towersafe	PMMA	15.00 kg	4.00 kg/m <sup>2</sup>		approx, 30 mins	approx. 45 mins		
Triflex Towersafe FA	PMMA	20.00 kg	3.00 kg/m <sup>2</sup>		approx. 30 mins		approx. 1 h	

(1) PMMA resins without catalyst (2) at +20 °C



### The fundamentals – Product information

Triflex products	Resin base	Pack size <sup>1</sup>	Volume	Pot life <sup>2</sup>	Rainproof <sup>2</sup>	Recoating <sup>2</sup>	Strength <sup>2</sup>	
		X	fi Lis	Š	$\sum_{i \in I}$	$\bigcirc$	kg	
Coatings								
Triflex Cryl M 264	PMMA	18.00 kg	4.00 kg/m <sup>2</sup>	approx. 10 mins	approx. 20 mins	approx. 40 mins	approx. 1 h	
Triflex Cryl M 269	PMMA	18.00 kg	6.00 kg/m <sup>2</sup>	approx. 10 mins	approx. 20 mins	approx. 40 mins	approx. 1 h	
Triflex Cryl SC 237	PMMA	15.00 kg	2.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 45 mins		approx. 2 h	
Triflex DeckFloor	PMMA	33.00 kg	4.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 1 h	approx. 2 h	
Triflex Metal Coat	-	20.00 kg	200-300 g/m <sup>2</sup>			approx. 2 h	approx. 2 weeks	
Triflex ProDeck	PMMA	33.00 kg	4.50 / 5.50 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 1 h	approx. 2 h	
Triflex ProFloor	PMMA	33.00 kg	4.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 1 h	approx. 2 h	
Triflex ProFloor RS 2K	PMMA	15.00 kg	4.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 1 h	approx. 2 h	
Triflex ProFloor S1	PMMA	33.00 kg	4.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins	approx. 1 h	approx. 2 h	
Triflex Than R 550	PUR	8.00 / 25.00 kg	2.10 kg/m <sup>2</sup>	approx. 30 mins		approx. 12 h	approx. 2 days	
Triflex Than RG 568+	PUR	30.00 kg	2.00 kg/m <sup>2</sup>	approx. 30 mins		approx. 18–36 h	approx. 7 days	
Finishes								
Triflex Cryl Finish 202	PMMA	10.00 kg	0.80 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins		approx. 2 h	
Triflex Cryl Finish 205	PMMA	5.00 / 10.00 kg	0.50-0.70 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins		approx. 2 h	
Triflex Cryl Finish 209	PMMA	10.00 kg	0.50-0.70 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins		approx. 2 h	
Triflex Cryl Finish S1	PMMA	10.00 kg	0.50-0.70 kg/m <sup>2</sup>	approx. 15 mins	approx. 30 mins		approx. 2 h	
Triflex Cryl Finish Satin	PMMA	10.00 kg	0.35 kg/m <sup>2</sup> approx. 15 mir		approx. 60 mins		approx. 2 days	
Triflex Pox Finish 173+	EP	30.00 kg	0.60 kg/m <sup>2</sup>	approx. 20 mins		approx. 13–36 h	approx. 5 days	
Triflex Than Finish 511	PUR	8.00 kg	0.20 kg/m <sup>2</sup>	approx. 45 mins	approx. 3 h	approx. 12 h	approx. 7 days	
Triflex Towersafe Finish	PMMA	10.00 kg	0.70 kg/m²	approx. 15 mins	approx. 30 mins		approx. 2 h	
Additional products								
Triflex Cleaner	-	1/9/27	0.20 l/m <sup>2</sup>					
Triflex Colour Mix	-	10.00 kg	1.00 kg/m <sup>2</sup>					
Triflex Cryl M 266	PMMA	18.00 kg	4.00 kg/m <sup>2</sup>	approx. 15 mins	approx. 20 mins	approx. 40 mins	approx. 1 h	
Triflex Cryl R 238	PMMA	15.00 kg	1.85 kg/l	approx. 15 mins approx. 30 mins			approx. 1 h	
Triflex Cryl R 239	PMMA	5.00 kg	1.85 kg/l	approx. 15 mins approx. 30 mins			approx. 1 h	
Triflex FlexFiller	PMMA	10.00 kg	2.20 kg/m <sup>2</sup> /mm	approx. 15 mins	approx. 30 mins		approx. 3 h	
Triflex Glass Cleaner	-	0.751	0.05 kg/m <sup>2</sup>			approx. 10 mins		
Triflex Liquid Catalyst	-	1.16 / 20.00 kg	2-6 %	approx. 30 mins				
Triflex Liquid Thixo	-	0.501	1 % by weight					
Triflex Micro Chips	-	2.00 kg	0.05 kg/m <sup>2</sup>					
Triflex ProDrain Fix	-	25.00 kg	3.00 kg/m <sup>2</sup>	approx. 60 mins				
Triflex ProJoint Cleaner	-	0.301						
Triflex ProJoint Fix	-	0.601	0.06 l/m			approx. 15 mins		
Triflex Powder Thixo	-	1.00 / 5.00 kg	2–4 % by weight					
Triflex Stone Design Galaxy	-	0.80 kg	0.40-0.50 kg/m <sup>2</sup>					
Triflex Stone Design R 1K	PUR	4 x 1.30 kg	0.80 kg/m²	approx. 4 h	approx. 8 h		approx. 36 h	
Triflex Stone Design S	-	25.00 kg	14.40 kg/m <sup>2</sup>					



### Substrate







### Substrate – Preparation



The suitability of the specific substrate should always be tested. The substrate must be clean, dry and free of cement bloom, dust, oil, grease and other adhesion-inhibiting substances.

#### Moisture



When carrying out coating work, the substrate moisture must not exceed 6 % by weight with PMMA systems . Deviating values are stated in the system descriptions. Moisture penetration from the rear of the covering due to structural conditions must be ruled out.

#### Dew point



When carrying out the work, the surface temperature must be **at least 3 °C** above the dew point temperature; otherwise, a separating film of moisture may form on the surface.

#### Hardness



Mineral substrates must be allowed to fully harden for at least 28 days.



- The following tensile strengths must be verified on pretreated test surfaces:
- Concrete: on average, at least 1.5 N/mm<sup>2</sup>, individual value not less than 1.0 N/mm<sup>2</sup>.
- Screed: on average, at least 1.0 N/mm<sup>2</sup>, individual value not less than 0.7 N/mm<sup>2</sup>.
- Asphalt: on average, at least 0.8 N/mm<sup>2</sup>, individual value not less than 0.5 N/mm<sup>2</sup>.

Deviating values are stated in the system descriptions.

#### **Gradient/Evenness**



Before any surfacing work, it is essential to ensure the correct and adequate gradient and evenness of the substrate. Any corrections required must be taken into account during this work.

#### **Dimensional tolerances**



During surfacing work, always ensure compliance with the dimensional tolerances for building construction (DIN 18202, table 3, line 4).

### Substrate – Inspection





### Substrate – Inspection







### Substrate - Pretreatment for PMMA products

Substrate	Pretreatment	Primer		
Acrylic glass	Rub down with Triflex Cleaner, roughen surface	No primer		
Aluminium	Rub down with Triflex Cleaner	Triflex Metal Primer <sup>(1)</sup>		
Asphalt	Grinding, scarifying or dust-free shotblasting	Triflex Cryl Primer 222		
Cold bitumen coating	Adhesive strength test	Triflex Cryl Primer 222		
Composite thermal insulation systems	Remove any loose material	Triflex Pox Primer 116+ Triflex Pox R 100		
Concrete	Grinding, scarifying or dust-free shotblasting	Triflex Cryl Primer 276 Triflex Cryl Primer 280 Triflex Cryl Primer 287 Triflex Pox Primer 116+ Triflex Pox R 100		
Copper	Rub down with Triflex Cleaner	Triflex Metal Primer (1)		
Epoxy resin coating	Roughen surface and test adhesive strength and compatibility	No primer		
Fibreglass/rooflight frame	Rub down with Triflex Cleaner, roughen surface	No primer		
Glass	Rub down with Triflex Glass Cleaner, adhesive strength test	Triflex Glass Primer		
Hot bitumen coating	Adhesive strength test	Triflex Cryl Primer 222		
Lightweight concrete	Remove any loose material	Triflex Cryl Primer 276 Triflex Cryl Primer 280 Triflex Cryl Primer 287 Triflex Pox R 100		
Mortar, resin-modified	Grinding, scarifying or dust-free shot-blasting;	Triflex Pox Primer 116+		
	test adhesive strength and compatibility	Triflex Pox R 100		
Paint	Grind/sand off completely	See substrate		
Plaster/masonry	Remove any loose material	Triflex Cryl Primer 276 Triflex Cryl Primer 287 Triflex Pox Primer 116+ Triflex Pox R 100		
Plastic sheeting (PIB)	Roughen surface, adhesive strength test	On inquiry (2)		
Plastic sheeting (PVC-P, nB), EVA	Rub down with Triflex Cleaner	No primer		
Plastic sheeting (TPO, FPO, EPDM)	Rub down Triflex Cleaner, roughen surface, adhesive strength test mandatory	On inquiry <sup>(2)</sup>		
Polymer bitumen sheeting (PYE) mod. (SBS)	Remove any loose material, adhesive strength test	No primer		
Polymer bitumen sheeting (PYP) mod. (APP)	Remove any loose material, adhesive strength test	Triflex Cryl Primer 222		
PU coating	Roughen surface, adhesive strength and compatibility test	No primer		
PVC mouldings, rigid	Rub down with Triflex Cleaner, roughen surface	No primer		
Screeds	Grinding, scarifying or dust-free shotblasting	Triflex Cryl Primer 276 Triflex Cryl Primer 280 Triflex Cryl Primer 287 Triflex Cryl Primer 287 Triflex Pox Primer 116+ Triflex Pox R 100		
Stainless steel	Rub down with Triflex Cleaner	Triflex Metal Primer (1)		
Steel, galvanised	Rub down with Triflex Cleaner	Triflex Metal Primer (1)		
Tiles	Mechanically remove glaze	Triflex Cryl Primer 276 Triflex Cryl Primer 287 Triflex Pox Primer 116+		
Wood	Remove any paint	Triflex Cryl Primer 276 Triflex Cryl Primer 287 Triflex Pox Primer 116+ Triflex Pox R 100		
Zinc	Rub down with Triflex Cleaner	Triflex Metal Primer <sup>(1)</sup>		
		•		

(1) Alternative to priming:

Rub down with Triflex Cleaner and roughen surface.

<sup>(2)</sup> Depending on type of sheeting, e.g. Triflex Primer 610.

Please note: The choice of primer is specified in the current system description. Information on other substrates is available on request (technik@triflex.de).

### Substrate – Pretreatment



#### **Mechanical pretreatment - Shotblasting**



### Shotblaster Blasting with abrasives is an

environmentally friendly blasting method in a closed system without chemical additives and water.

# Mechanical pretreatment - Grinding





Preparing the surface by grinding with a **diamond disc** to obtain a sound substrate with good adhesion properties.





### Instructions for use

### Substrate – Pretreatment



Substrate

### Instructions for use

### Substrate – Pretreatment









### Substrate - Repairs



Triflex Instructions for use 08/2023

### Substrate – Adhesive strength test

Adhesion and compatibility of Triflex waterproofing on substrates must be tested on the specific surface that you are treating. An adhesive strength test can provide information about the bond of the material combination. The test must be carried out before waterproofing work begins.

An adhesive strength test should be carried out for both synthetic membranes and polymer-modified bitumen sheeting. Depending on the substrate, different pretreatments are required. If the substrate or the type of roofing membrane is unknown, we recommend that you carry out adhesive strength tests with different pretreatments. When carrying out the test, the technical documents provided by Triflex must be followed.

### Procedure for PMMA systems

#### • Plastic sheeting (PIB):

Roughen the surface, pretreat with Triflex Primer 610, carry out an adhesive strength test.

- Plastic sheeting (PVC-P, nB, EVA): Rub down the surface with Triflex Cleaner.
- Plastic sheeting (TPO, FPO, EPDM): Rub down the surface with Triflex Cleaner, then roughen it and pretreat with Triflex Primer 610. It is then **imperative** to carry out an adhesive strength test.
- Polymer-modified bitumen sheeting (PYE mod. (SBS)): No special pretreatment or priming necessary.
- **Polymer-modified bitumen sheeting (PYP mod. (APP)):** Prime with Triflex Cryl Primer 222.

#### Note regarding application of the specific primer\*

• Triflex Cleaner:

Rub down the surface with the cleaner, required quantity at least 0.20 l/m<sup>2</sup>, airing time **at least 20 mins** 

 Triflex Cryl Primer 222: Apply evenly with a Triflex universal roller or a brush, required quantity at least 0.40 kg/m<sup>2</sup>, can be overcoated after approx. 45 mins

• Triflex Primer 610:

Apply evenly with a brush or roller, required quantity approx. 40 to 80 g/m<sup>2</sup>, can be overcoated after **approx. 20 mins** 



\* You will find more primers for other substrates in the technical documents.



### Substrate – Adhesive strength test





Cut strips from the Triflex Special Fleece, **approx. 10 to 15 x 30 cm.** Incorporate them wet-on-wet into the waterproofing resin.

Do not apply resin to **approx. 7 cm** at one end for use as a **pull strip**.

#### Testing adhesion

_	
$\sim$	
()	

Remove the masking tape.

Grip the free end of the fleece with one hand. Pull it vertically and try to detach the fleece from the substrate slowly, not abruptly.

We recommend allowing the waterproofing to cure for at least 1 week.



### Substrate – Adhesive strength test



### Substrate – Dew point temperature

A	Dew point temperature in °C at a relative humidity of											
Air temperature	30 %	40 %	50%	55 %	60 %	65 %	70 %	75 %	80 %	85 %	90 %	95 %
°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C
+30 °C	10.5	14.9	18.4	20.0	21.4	22.7	23.9	25.1	26.2	27.2	28.2	29.1
+28°C	8.8	13.1	16.6	18.1	19.5	20.8	22.0	23.2	24.2	25.2	26.2	27.1
+26 °C	7.1	11.4	14.8	16.3	17.6	18.9	20.1	21.2	22.3	23.3	24.2	25.1
+24 °C	5.4	9.6	12.9	14.4	15.8	17.0	18.2	19.3	20.3	21.3	22.3	23.2
+22 °C	3.6	7.8	11.1	12.6	13.9	15.1	16.3	17.4	18.4	19.4	20.3	21.2
+20°C	1.9	6.0	9.3	10.7	12.0	13.2	14.4	15.4	16.4	17.4	18.3	19.2
+18°C	0.2	4.2	7.4	8.8	10.1	11.3	12.5	13.5	14.5	15.4	16.3	17.2
+16°C	-1.5	2.4	5.6	7.0	8.3	9.4	10.5	11.6	12.6	13.5	14.4	15.2
+14°C	-3.3	0.6	3.8	5.1	6.4	7.5	8.6	9.6	10.6	11.5	12.4	13.2
+12 °C	-5.0	-1.2	1.9	3.3	4.5	5.6	6.7	7.7	8.7	9.6	10.4	11.2
+10°C	-6.8	-3.0	0.1	1.4	2.6	3.7	4.8	5.8	6.7	7.6	8.4	9.2
+8 °C	-8.5	-4.8	-1.8	-0.5	0.7	1.8	2.9	3.9	4.8	5.6	6.5	7.3
+6 °C	-10.2	-6.6	-3.6	-2.3	-1.2	-0.1	1.0	1.9	2.8	3.7	4.5	5.3
+4 °C	-12.0	-8.4	-5.5	-4.2	-3.1	-2.0	-1.0	0.0	0.9	1.7	2.5	3.3
+2 °C	-13.7	-10.2	-7.3	-6.1	-4.9	-3.9	-2.9	-2.0	-1.1	-0.3	0.5	1.3
0°C	-15.5	-12.0	-9.2	-7.9	-6.8	-5.8	-4.8	-3.9	-3.0	-2.2	-1.4	-0.7
-2°C	-17.3	-13.8	-11.0	-9.8	-8.7	-7.7	-6.7	-5.8	-5.0	-4.2	-3.4	-2.7
-4°C	-19.0	-15.6	-12.9	-11.7	-10.6	-9.6	-8.7	-7.8	-6.9	-6.1	-5.4	-4.7

#### **Example:**

When an air temperature of +20 °C with 60 % relative humidity impacts on surfaces at +12 °C or cooler, condensation occurs.

#### **Please note:**

During application, the surface temperature must be at least  $3 \,^{\circ}$ C above the dew point. Below this temperature, a separating film of moisture can form on the surface.





### Preparation







### Preparation – 2-comp. products with catalyst (PMMA)





Preparation

### Preparation – 3-comp. products with catalyst (PMMA)







### Preparation – 2-comp. products with hardener (PUR and EP)




#### Preparation – 2-comp. products with hardener (PUR and EP)





#### Preparation – 1-comp. products (PUR)



#### Triflex waterproofing and coating Instructions for use





The requirements to be met by structures are complex, so new challenges for waterproofing systems are constantly arising. The new Triflex SmartTec technology is the first solution capable of providing durable protection, even in areas where other systems often only achieve imperfect results and are costly to implement. Typical applications are damp, mineral substrates, such as foundations or plinth areas, ornamental fountains and water tanks. Even indoor equipment rooms or buildings with special environmental and health requirements, such as nurseries or hospitals, are waterproofed with Triflex SmartTec safely and reliably from the ground up. And all this with just a single material - easy to apply, reliable, and highly efficient. Fundamentally waterproof.





#### Preparation – Liquid catalyst



#### Preparation – Liquid catalyst







#### Preparation - Fleece precuts and mouldings

#### **Triflex Special Fleece and mouldings**

Triflex Special Fleece is used for reinforcement and for adjusting the layer thickness with Triflex PMMA and PUR waterproofing. Triflex Special Fleece is a polyester fleece with reinforcing and crack-bridging properties. The weight of the fleece is **110 g/m<sup>2</sup>**.

It is available as a roll in various dimensions, as mouldings for corners and as pipe collars.

#### Application

The fleece is embedded fully in the resin and pressed down to remove all creases and air bubbles. It is then fully saturated wet-on-wet; see also the Triflex system descriptions. Fleece strips and lengths must overlap **at least 5 cm** at the junctions.

#### Grid marking and lettering

Useful grid marking

Triflex Special Fleece is printed with a 5 cm grid for ease of cutting to size and overlapping. With the mouldings, the Triflex lettering marks the overlap area on the fleece.



The Triflex Special Fleece saves tradesmen valuable time on the construction site. The grid marking avoids the need to measure precuts, upstands and overlaps. The printing also has a second function: When it is no longer visible, enough resin has been applied.

#### Rolls





Triflex Special Fleece in varying widths of 15 to 105 cm for complete reinforcement.

Width x length: 15.00 cm x 50 m 20.00 cm x 50 m 26.25 cm x 50 m 35.00 cm x 50 m 52.50 cm x 50 m 70.00 cm x 50 m 105.00 cm x 50 m



Grid size  $5 \times 5$  cm

#### **Triflex Special Fleece PF**

Micro-perforated fleece for full-surface reinforcement in varying widths from **15 to 105 cm.** The perforations in the fleece ensure faster saturation with the resin and reduce the risk of air inclusions.

#### Triflex waterproofing and coating Instructions for use



Preparation

#### Preparation – Fleece precuts and mouldings



Triflex Special Fleece SK in varying widths from 20 to 35 cm, self-adhesive for bridging cavities.

The self-adhesive special fleece is suitable for construction joints, on thermal breaks or for bridging on materials where incompatibility may occur. First, the substrate is secured with butyl strips. The fleece sides are folded up and the resin distributed underneath. Then the polyester fibre is embedded and covered with another layer of resin.

#### **Fleece mouldings**

#### Inner corner moulding

For reinforcement of inner corners 15x8x15 cm (width x height x depth)



Outer corner moulding For reinforcement of outer corners 16x8x16 cm (width x height x depth)

Pipe collar, 2-part For reinforcement of vents and drains Pipe diameter 8 cm, 11 cm or 13.5 cm 40x40x6 cm (width x length x height)



Triflex waterproofing and coating Instructions for use



Triflex waterproofing and coating Instructions for use

#### Priming







#### Priming – PMMA primer





46

#### Priming – PMMA primer





# Priming – EP primer





#### Priming – EP primer





Triflex Instructions for use 08/2023

#### Priming – Metal substrates





#### Priming – Metal substrates





Primin

Triflex Metal Primer reaches its full adhesive tensile strength after approx. 3 days. You should not attempt any peel tests

before this.

#### Priming – Glass substrates





#### Priming – Glass substrates





### Priming – Triflex SmartTec



Use the table below to select the primer suited to the substr material.	Anna M		
	Triflex TecGrip 620 Tr	iflex Metal Primer	Triflex Glass Prin
Substrate	Pretreatment	Primer	
Aluminium	Rub down with Triflex Cleaner	Triflex Metal Primer	
Anodised aluminium	Rub down with Triflex Cleaner	Triflex Metal Primer, or alternatively: Triflex TecGrip 620	
Asphalt	Grinding	Triflex Bitumen Blocker	
Cold bitumen coating	Adhesive strength test	Triflex Bitumen Blocker	
Composite thermal insulation systems		No primer	
Concrete	Grinding, scarifying or dust-free shotblasting	No primer	Triflex Primer 6
Concrete, polymer-modified	Grinding, scarifying or dust-free shotblasting	No primer	innex i finiter o
Galvanised metal	Rub down with Triflex Cleaner	Triflex Metal Primer, or alternatively: Triflex TecGrip 620	
Glass	Rub down with Triflex Glass Cleaner, roughen surface	Triflex Glass Primer	
Hot bitumen coating	Adhesive strength test	Triflex Bitumen Blocker	
Lightweight concrete	Cleaning	No primer	
Mortar, resin-modified	Grinding, scarifying or dust-free shotblasting	No primer	Triflex Than Prime
Paint	Grind/sand off completely	Depending on the substrate	
Plaster/masonry	Cleaning	No primer	
Plastic sheeting (EPDM)	Rub down with Triflex Cleaner	Triflex Bitumen Blocker	
Plastic sheeting (EVA)	Rub down with Triflex Cleaner	Triflex Primer 791	·
Plastic sheeting (PIB)	Rub down with Triflex Cleaner, roughen surface	On inquiry, possibly Triflex Primer 610	
Plastic sheeting (PVC-P, nB)	Rub down with Triflex Cleaner, roughen surface	Triflex Than Primer 533	Triflex Primer 7
Plastic sheeting (TPO, FPO)	Rub down with Triflex Cleaner, roughen surface	Triflex Primer 610	
Polymer bitumen sheeting (PYE) mod. (SBS)		Triflex Bitumen Blocker	
Polymer bitumen sheeting (PYP) mod. (APP)	Adhesive strength test	Triflex Bitumen Blocker	
Powder-coated metals	Cleaning	Triflex Metal Primer, or alternatively: Triflex TecGrip 620	Riccardon
PVC mouldings, rigid	Rub down with Triflex Cleaner	Triflex Primer 791	
Screeds	Grinding	No primer	
Stainless steel	Rub down with Triflex Cleaner	Triflex Metal Primer	
Steel, galvanised	Rub down with Triflex Cleaner	Triflex Metal Primer	Triflex Bitumen Bl
Wood	Remove any paint	No primer	



imer



610

er 533



791



locker

#### Priming – Triflex SmartTec



#### **Brush application**



Triflex Primer 610, Triflex Than Primer 533 and Triflex TecGrip 620 are applied with a brush.



# Roller application Triflex Primer 791 for hard PVC substrates is applied with an MP roller (5 cm or 10 cm wide). Africe Image: Construction of the substrate of the su

Professional tip from a Triflex applications engineer

After applying Triflex Primer 791, remove the masking tape and mask again for the next working step. Triflex waterproofing and coating Instructions for use



Triflex waterproofing and coating Instructions for use

#### Detail waterproofing







#### Detail waterproofing - Wall junction



# Triflex waterproofing and coating Instructions for use



#### Detail waterproofing - Wall junction



#### Detail waterproofing - Inner and outer corners



60

# Triflex waterproofing and coating Instructions for use



#### Detail waterproofing - Inner and outer corners



#### Detail waterproofing – Drain





# X

#### Detail waterproofing - Drain





#### Detail waterproofing - Drain



64

#### Detail waterproofing - Vent





#### Detail waterproofing - Vent



#### 5 Vertical connection



Apply the waterproofing resin **vertically** to the ventilation pipe, then embed the special fleece precut, removing any air bubbles, and apply another generous layer of resin.







#### Detail waterproofing - Vent

Alternative steps 3 to 5: Fleece precuts instead of mouldings

#### Making fleece precuts



Pipe:

Make incisions along the entire length of the fleece. They should be **5 cm** deep, **1 cm** wide and strip-shaped. Fleece width: **20 cm** Fleece length: **Pipe circumference + 5 cm** 

#### Embedding fleece precuts



Apply a generous layer of waterproofing resin to the pipe and surrounding area with a universal roller or brush, and apply the precut for the pipe, removing any air bubbles.



Triflex

Trifles

Fold the cut strips of the fleece over onto the surrounding area and apply another generous layer of resin on the pipe and surrounding area.

Surrounding area:

Two pieces of fleece with

Allow an overlap of 5 cm.

a hole-shaped cut-out

in the middle to the

diameter of the pipe.

#### Waterproofing fleece precuts



Embed **both** precuts for the surrounding area **one after the other**, removing any air bubbles, and apply another generous layer of resin.









<sup>68</sup> 













#### 8 Waterproofing all sides



Repeat the steps described on the three other sides.











#### Detail waterproofing - Construction joint






#### Detail waterproofing - Construction joint





#### Detail waterproofing - Settlement joint









#### Detail waterproofing - Settlement joint



Embed a 35 cm fleece strip, with a loop in the joint, and remove any air bubbles.
Fold the fleece over and saturate from underneath.





#### Detail waterproofing - Settlement joint









#### Detail waterproofing - Settlement joint



# X

#### Detail waterproofing - Railing post with front edge





#### Detail waterproofing – Railing post with front edge





#### Detail waterproofing – Railing post with front edge





When adapting the fleece, allow for the junction depth of the front edge.

## Triflex waterproofing and coating



#### Detail waterproofing – Railing post with front edge





#### Detail waterproofing – Railing post with front edge



### Triflex waterproofing and coating



## Triflex



#### Triflex ProDetail Waterproof in every smallest detail

Complex junctions, tricky details and narrow joints are the classic weak points in roof structures. Generally speaking, leaks in a flat roof only become apparent when the rooms underneath show signs of damp. Damage tends to occur when the weather gets colder.

Triflex ProDetail is a waterproofing system developed specially for junctions that ensures durable and reliable protection of details. Triflex ProDetail is formulated for use at substrate temperatures of -5 °C. The liquid Triflex ProDetail is rainproof after approx. 30 minutes and fully cured in approx. 45 minutes. So repairs can be safely carried out in all weathers.

#### Your benefits at a glance:

- Waterproof in every detail: The cured resin forms a seamless and joint-free surface.
- Highly resilient with dynamic crack bridging
- Short reaction times
- Reliable application: Vertical surfaces present no problem.
- European Technical Assessment with CE mark.
- Meets the requirements of DIN 18531 and the German Flat Roof Guidelines.
- General Building Supervisory Authority Test Certificate (abP) for liquid-applied waterproofing of building structures, as per the testing quidelines in VV TB, Part C, No. C 3.28.
- Root- and rhizome-resistant according to FLL standards.



#### Detail waterproofing - Balcony edge finishing profile





## Detail waterproofing – Balcony edge finishing profile



#### Masking the profile



5

Protect visible details of the powder-coated profile from soiling and damage with masking tape.







## Detail waterproofing – Balcony edge finishing profile







#### Detail waterproofing - Eaves edge finishing







#### Detail waterproofing - Eaves edge finishing



Alternatively, metal substrates can be abraded.







#### Detail waterproofing - Eaves edge finishing





#### Detail waterproofing - Step edge profile





#### Detail waterproofing - Step edge profile





#### Detail waterproofing - French window



б

waterproofing resin.

#### Detail waterproofing – French window



tape while resin is still wet.





#### Detail waterproofing – Triflex SmartTec





#### Detail waterproofing – Triflex SmartTec



Professional tip from a Triflex applications engineer





Triflex SmartTec Sp can also be applied with a hydraulic spray device.





#### Area waterproofing





#### Area waterproofing







#### Area waterproofing





If work is interrupted for more than 24 hours, 10 cm fleece overlap must be allowed at the joins when work is resumed.

#### 5 Connecting further fleece strips Apply waterproofing resin for the second

fleece strip and spread it evenly.







If sufficient resin was applied, the fleece will be fully saturated. If not, lift the fleece off again apply another generous layer of resin.

#### Area coating / Wearing layer











#### Triflex ProFloor **Durable coating**

Triflex ProFloor is used as a high-quality and durable coating for heavily used surfaces in the Triflex BTS-P, Triflex BFS and Triflex TSS balcony systems.

The 3-component pigmented coating (selflevelling mortar) with a polymethyl methacrylate resin (PMMA) base is also available as 2-component Triflex ProFloor RS 2K.

#### Triflex ProFloor offers the following features:

- Self-levelling
- Fast-curing
- Weather-resistant
- Waterproof
- Wear-resistant
- Solvent-free
- UV-resistant
- Suitable for vehicle traffic
- Withstands high mechanical loads







Triflex waterproofing and coating

Instructions for use





Go to step 3	
"Without infill" / Standard:	see p. 105
"Chips Design" finish:	see p. 106
"Infill, fine" finish:	see p. 108
"Infill, coarse" finish:	see p. 109
"Colour Design" finish:	see p. 110
"Creative Design" finish:	see p. 112
"Stone Design" finish:	see p. 118

Triflex waterproofing and coating

#### Instructions for use

#### Finishing – "Without infill" / Standard surface





#### Instructions for use

#### Finishing – "Chips Design" finish





#### Instructions for use

#### Finishing – "Chips Design" finish



#### Instructions for use

#### Finishing – "Infill, fine" finish




Triflex waterproofing and coating



Finishing – "Infill, coarse" finish



109

## Finishing – "Colour Design" finish



## Finishing – "Colour Design" finish



Professional tip from a Triflex applications engineer

The roller handle should always face the already finished wall junction to prevent soiling of this completed section.

## Finishing – "Creative Design" finish



#### Laying method: Negative with Triflex FloorTattoo

Sample as negative relief/joint

Apply **Triflex FloorTattoo** to the substrate colour, then apply the surface colour over the entire area.

Remove the sheet after the drying phase, to create the negative pattern.



#### Laying method: Negative with Triflex Design Sheet

Sample as negative relief/joint

Apply **Triflex FloorTattoo** to the substrate colour, then apply the surface colour over the entire area.

Remove the sheet after the drying phase, to create the negative joint pattern.





## Finishing - "Creative Design" finish





## Finishing – "Creative Design" finish





## Finishing - "Creative Design" finish



Finishing



## Finishing – "Creative Design" finish





## Finishing - "Creative Design" finish



## Finishing – "Stone Design" finish



118

## Finishing – "Stone Design" finish





## Finishing – "Stone Design" finish





Clean the trowel if material sticks to it.

Stir the mixed material several times so that the resin does not sink to the

bottom.

## Finishing – "Stone Design" finish





Professional tip from a Triflex applications engineer



Do not tip the mixture onto the surface so as to avoid clusters of resin.

To ensure a uniform appearance, it is preferable for one person to complete the job.

Using a spotlight, defective spots or waves are easy to detect via the shadow cast.



## Ancillary systems







## Ancillary systems – uncoupling with Triflex ProDrain



## Preparation

 \*\*
 Prepare the substrate, abrade the tile coverings,

 \*\*\*\*\*
 remove loose components and level any unevenness.



Gradient of at least 2 %



Dampen mineral substrates if necessary.



Cut **Triflex DC-Mat Uncoupling Membrane** to size so that it can adapt to the temperatures.







## Ancillary systems – uncoupling with Triflex ProDrain





## Ancillary systems – uncoupling with Triflex ProDrain





Waterproofing the eaves connection See p. 87

## Triflex waterproofing and coating



## Ancillary systems – Thermal insulation with Triflex BIS



pecial system



## Ancillary systems – Thermal insulation with Triflex BIS



128



## Ancillary systems – Thermal insulation with Triflex BIS











Work step	Problem	Cause	Solution
~ <u>\</u>	Primer fails to cure (all over).	<ul> <li>No catalyst or too little catalyst added.</li> <li>Primer applied too thinly.</li> </ul>	<ul> <li>Remove primer.</li> <li>Apply new primer with catalyst.</li> <li>Use stated volume per m<sup>2</sup>!</li> </ul>
	Primer fails to cure in places (wet patches).	<ul> <li>Mixing error</li> <li>Inadequate substrate pretreatment (residual substances impair curing).</li> </ul>	<ul> <li>Remove the primer and clean with Triflex Cleaner, observing the airing time.</li> <li>Abrade the substrate thoroughly</li> <li>Re-apply primer.</li> </ul>
	Defective spots in the primer (film incomplete).	Primer not applied crosswise and lengthwise.	• Immediately reapply primer to defective spots wet-on-wet.
Primer	Primer lifting at the edges.	Primer applied too thickly.	<ul> <li>Remove all loose material.</li> <li>Re-apply primer to defective spots.</li> </ul>
		Substrate not sound.	<ul> <li>Remove primer.</li> <li>Treat the substrate accordingly and re-apply primer.</li> </ul>
	Lumps in the primed surface.	Primer applied after the end of pot life.	<ul> <li>Remove lumps with a trowel or by abrading.</li> <li>Re-apply primer to defective spots.</li> </ul>
	Pinholes in the primer.	<ul> <li>Priming on pore-rich substrates at relatively high temperatures.</li> </ul>	<ul> <li>Priming at falling substrate temperatures.</li> <li>Alternatively: prime twice with Triflex Cryl Primer 280.</li> </ul>
Primer with quartz sand	Quartz sand has not bonded in places.	<ul> <li>Insufficient material applied.</li> <li>Quartz sand applied too late.</li> <li>Insufficient quartz sand applied.</li> </ul>	<ul> <li>Mechanically roughen defective spots.</li> <li>Prime and dress defective areas again.</li> </ul>



Work step	Problem	Cause	Solution
Levelling mortar	Mortar fails to cure (all over).	<ul> <li>No catalyst or too little catalyst added.</li> </ul>	<ul> <li>Mechanically remove mortar.</li> <li>Clean defective spots with Triflex Cleaner, observing the airing time.</li> <li>Re-apply mortar.</li> </ul>
	Mortar fails to cure in places (wet patches).	<ul> <li>Mixing error</li> <li>Inadequate substrate pretreatment (residual substances impair curing).</li> </ul>	<ul> <li>Mechanically remove mortar and clean with Triflex Cleaner, observing the airing time.</li> <li>If necessary, re-apply primer.</li> <li>Re-apply mortar.</li> </ul>
	Lips or trowel marks in mortar.	<ul> <li>Work resumed too late.</li> <li>Unevenly applied.</li> <li>Not levelled with spiked roller.</li> </ul>	<ul> <li>Mechanically remove lips.</li> <li>If necessary, add additional coating or level any unevenness.</li> </ul>
Levelling	Paste fails to cure.	<ul> <li>No catalyst or too little catalyst added.</li> </ul>	<ul> <li>Mechanically remove paste.</li> <li>Clean defective spots with Triflex Cleaner, observing the airing time.</li> <li>Re-apply paste.</li> </ul>



Work step	Problem	Cause	Solution
Waterproofing	Waterproofing fails to cure.	<ul> <li>No catalyst or too little catalyst added.</li> <li>Resin layer under the fleece too thin.</li> </ul>	<ul> <li>Completely remove the waterproofing.</li> <li>Clean area with Triflex Cleaner, observing the airing time.</li> <li>Mechanically roughen substrate.</li> <li>Re-apply primer to substrate.</li> <li>Re-apply waterproofing.</li> </ul>
	Bubbles in the waterproofing.	<ul> <li>Air bubbles – fleece not correctly pressed down.</li> <li>Insufficient resin in places.</li> <li>Mixing error</li> <li>Defective spots in the primer.</li> </ul>	<ul> <li>Cut open bubbles.</li> <li>Remove any material that has failed to cure.</li> <li>Clean area with Triflex Cleaner and observe the airing time.</li> <li>Mechanically roughen substrate.</li> <li>Re-apply primer to substrate.</li> <li>Re-apply waterproofing.</li> </ul>
	Waterproofing peeling away from substrate.	Insufficient resin applied.	<ul> <li>Completely remove waterproofing and material that has failed to cure.</li> <li>Clean area with Triflex Cleaner and observe the airing time.</li> <li>Mechanically roughen substrate.</li> <li>Re-apply primer to substrate.</li> <li>Re-apply waterproofing.</li> </ul>
	Waterproofing has cured, but is extremely tacky.	Application temperatures too low or too high.	• Clean the area with Triflex Cleaner and observe the airing time.

# X

Work step	Problem	Cause	Solution
Wearing layer	Wearing layer fails to cure (all over).	<ul> <li>No catalyst or too little catalyst added.</li> </ul>	<ul> <li>Mechanically remove entire wearing layer.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Apply new wearing layer.</li> </ul>
	Wearing layer fails to cure in places (wet patches).	Mixing error	<ul> <li>Remove all uncured material.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply wearing layer to affected areas.</li> </ul>
	Wrinkles in wearing layer (irregularities in the surface).	<ul> <li>Waterproofing applied too thinly.</li> <li>Not allowed to cure fully.</li> </ul>	<ul> <li>Completely remove waterproofing and any uncured material from the wearing layer.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Mechanically roughen substrate.</li> <li>Re-apply primer to substrate.</li> <li>Apply waterproofing.</li> <li>Re-apply wearing layer.</li> </ul>
	Wearing layer is cured, but is extremely tacky.	Application temperatures too low or too high.	• Clean the area with Triflex Cleaner and observe the airing time.
	Quartz sand has not bonded in places.	<ul> <li>Quartz sand applied too late.</li> <li>Wearing layer applied too thinly.</li> <li>Insufficient quartz sand applied.</li> </ul>	<ul> <li>For aesthetic reasons, abrade in straight sections.</li> <li>Apply and dress the wearing layer again.</li> </ul>

# X

Work step	Problem	Cause	Solution
Coating	Coating fails to cure (all over).	<ul> <li>No catalyst or too little catalyst added.</li> </ul>	<ul> <li>Mechanically remove entire coating.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply coating.</li> </ul>
	Coating fails to cure in places (wet sections).	Mixing error	<ul> <li>Remove all uncured material.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply coating to affected areas.</li> </ul>
	Wrinkles in coating (irregularities in the surface).	<ul><li>Coating applied too thinly.</li><li>Not allowed to cure fully.</li></ul>	<ul> <li>Remove all uncured material.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Mechanically roughen substrate.</li> <li>Re-apply primer to substrate.</li> <li>Re-apply coating.</li> </ul>
	Coating is cured, but is extremely tacky.	Application temperatures too low or too high.	• Clean the area with Triflex Cleaner and observe the airing time.
	Lips or trowel marks in the coating.	<ul> <li>Work resumed too late.</li> <li>Unevenly applied.</li> <li>Not levelled with spiked roller.</li> </ul>	<ul> <li>Mechanically remove lips.</li> <li>If necessary, add additional coating or level any unevenness.</li> </ul>
	Quartz sand has not bonded in places.	<ul> <li>Quartz sand applied too late.</li> <li>Coating applied too thinly.</li> <li>Insufficient quartz sand applied.</li> </ul>	<ul> <li>For aesthetic reasons, abrade in straight sections.</li> <li>Re-apply the coating and sandblast.</li> </ul>

# X

Work step	Problem	Cause	Solution
Finishing	Finish has failed to cure in places (wet patches).	Mixing error	<ul> <li>Remove all uncured material.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply finish all over.</li> </ul>
	Defective spots in the finish (no continuous film in some places).	Finish not applied     crosswise and lengthwise	<ul> <li>Re-finish defective spots.</li> <li>For aesthetic reasons, the finish usually needs to be re-applied all over.</li> </ul>
	Wrinkles in finish.	Wearing layer not fully cured.	<ul> <li>Remove all uncured material.</li> <li>Remove wearing layer by abrading.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply wearing layer and finish.</li> </ul>
	Pigment leached out of vertical components.	<ul> <li>Sag resistance of finish insufficient.</li> <li>No thixotroping agent added.</li> </ul>	<ul> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Re-apply finish, with added Triflex Liquid Thixo, all over.</li> </ul>
	Air bubbles appear in the finish during application.	Finish applied too thickly.	• Spread the finish more thinly with the roller.



Work step	Problem	Cause	Solution
"Chips Design" finish	Microchips protruding too far out of the finish (impedes cleaning).	<ul> <li>Finish applied too thinly.</li> <li>Triflex Micro Chips applied too late.</li> </ul>	<ul> <li>Abrade finish.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Apply finish in accordance with recommended volumes.</li> <li>Blow the Triflex Micro Chips into the wet finish.</li> </ul>
	Lips and ridges in the surface.	<ul> <li>Finish applied too thinly.</li> <li>Triflex Colour Mix applied too late.</li> </ul>	<ul> <li>Abrade finish.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Apply finish in accordance with recommended volumes.</li> <li>Blow Triflex Colour Mix into the still-wet finish.</li> </ul>
"Colour Design" finish	"Clouding" on the surface.	<ul> <li>Funnel spray gun used without attachment.</li> <li>Triflex Colour Mix applied too late.</li> </ul>	<ul> <li>Abrade finish.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Apply finish in accordance with recommended volumes.</li> <li>Blow Triflex Colour Mix into the still-wet finish.</li> </ul>
	Streaks in transparent finish.	<ul> <li>Finish not applied crosswise and lengthwise</li> <li>Finish roller not used.</li> </ul>	<ul> <li>Abrade finish.</li> <li>Clean the area with Triflex Cleaner and observe the airing time.</li> <li>Refinish entire surface in compliance with technical guidelines.</li> </ul>





What you need to know





141



## **Disposal**

## Environment

If you have any unused materials left over, or should it be necessary to remove Triflex waterproofing or coatings, these products, in their fully cured state, can be disposed of as normal construction site mixed waste at a general waste dump.

Furthermore, the EWC (European Waste Catalogue) classification codes, e.g. 170203, stated in the relevant EC safety data sheets apply to regional waste management providers.

Triflex is a licensee in the recycling system for packaging disposal operated by Interzero GmbH & Co. KG. Through this licence arrangement, the collection of Triflex packaging is free of charge for our customers. Empty packaging can be disposed of by registering with Interzero at one of the local partners.



Further information on recycling points where you can dispose of your Triflex packaging free of charge under the licence can be found at www.interzero.de.



There may be a slight odour problem when working with Triflex PMMA resin. Depending on ambient conditions, such as outdoor temperature and wind direction, it is also possible that ventilation systems may convey odours to adjoining rooms during refurbishment work.

In cooperation with the water protection board, trade supervisory board and public health authority, measurements were taken during the application of Triflex resins, in addition to in-house measurements. The results are in compliance with legal requirements, i.e. the measurements were shown to be below the statutory workplace exposure limits.

The results from various series of measurements demonstrate that not only are Triflex PUR and Triflex PMMA resins ideal for tackling complex refurbishment jobs, they also do not pose any health risk, provided contractors adhere to the safety instructions.

Due to the very low odour threshold values of monomers, Triflex does not recommend the use of PMMA resins for indoor applications. If their use in enclosed spaces is unavoidable, contractors must always ensure that there is forced ventilation with a minimum 7 air changes per hour. In cases where workplace exposure limits are exceeded, respiratory protection must be worn. The provisions of EC safety data sheets also apply.

Once fully cured, the resins attain their final technical properties. There are then no longer any unpleasant odours.



## Maintenance and care instructions



## The care methods apply to the following Triflex systems:

Triflex BTS-P Balcony Waterproofing System Triflex BFS balcony coating system Triflex TSS step surfacing system Triflex Stone Design surface design

#### Cleaning "Chips Design"

Use standard floor cleaning and care products in accordance with the instructions. For regular cleaning, a broom and mop are sufficient. Alternatively, you can also use a squeegee with a rubber lip.

#### Cleaning "Stone Design"/"infill"

High-quality surfaces require intensive care to preserve their appearance. Pressure washers are suitable for surfaces with "infill fine/coarse", and surface cleaners for Triflex Stone Design with a pressure setting no higher than 30 bar.

#### Unsuitable care products and procedures

Do not using hard metal objects or some high-pressure cleaners Disinfectants or corrosive cleaning agents are also unsuitable. Test the selected cleaning products on a small area before attempting to clean the entire area. Triflex GmbH & Co. KG reserves the right to inspect cleaning procedures in the field. Cleaning procedures which do not comply with the data sheet can render the Triflex warranty null and void. All technical advice on the maintenance and care of our products is based on extensive research. It is necessary to test suitability for the specific purpose.

#### **Textile coverings**

Textile surfaces (carpets, artificial grass, doormats etc.) are subject to a loss of softness. This is unproblematic for the function of the Triflex system but can lead to discolouration.

#### Flower tubs and pots

Due to the necessary thermoplastic properties of our PMMA products (flexibility), high point loads, especially in combination with high temperatures, may cause deformations in the coating. These are usually reversible once the load is removed. Flower tubs etc. should not be placed directly on the surface. It is advisable to stand them on an open, grill-type wooden or plastic base. The legs of chairs and tables should be fitted with the appropriate protective caps or felt gliders.

#### Plant and leaf remnants

Any plant and leaf remnants should be regularly removed from Triflex coverings because, if left to rot, they can produce tannins, which may lead to discolouration of the surface.

#### Beading effect

While Triflex products are curing, the surface releases paraffin. This may impede proper drainage of rainwater (pooling). After approx. 6 months, the paraffin has weathered and rainwater will drain properly if there is sufficient gradient.

#### Winter care

All Triflex systems are resistant to de-icing salt. Grit and granules should not be used on Triflex systems because of their grinding effect.

#### Damage

Always take precautions to prevent mechanical/thermal damage (e.g. caused by naked flames or burning embers), as such damage may have a lasting adverse effect on Triflex multi-layer systems. Perforations made in Triflex systems for cable ducts or dowels may also destroy the product's waterproofing capability. Chair and table legs should be fitted with plastic floor protectors to prevent scratch marks. Technical information is subject to change without notice in the interests of technical advancement or enhancement of our products.



## We are here to help.

In addition to excellent products, Triflex aims to provide outstanding service. We offer you support in planning and advice before, during and after implementation of your project. Our applications engineers are there to help you. Feel free to get in touch!



## Germany

#### **Application Technology Head Office**

#### Martin Mossau



Head of Application Technology +49 171 5 21 25 12 martin.mossau@triflex.de

#### Markus Steffen



#### +49 151 57 98 28 34 markus.steffen@triflex.de

#### Tim Busse



+49 172 6 34 08 84 tim.busse@triflex.de

#### Marvin Zepp



+49 160 90 64 19 69 marvin.zepp@triflex.de

## **Technical Hotline**

Monday to Thursday: 8:00 a.m.-5:00 p.m. Friday 8:00 a.m.-3:00 p.m.

+49 571 38780 - 750 technik@triflex.de

## **Application Technology North East**

#### **Ricardo Jacobs**



+49 160 5 88 02 41 ricardo.jacobs@triflex.de

#### Kevin Choynowski



+49 160 90 34 92 06 kevin.choynowski@triflex.de

## Application Technology West

#### Maik Neumann



+49 172 1 58 26 18 maik.neumann@triflex.de

#### Rene Sänger



+49 151 55 42 29 06 rene.saenger@triflex.de

## **Application Technology South**

#### Kai Spacil



+49 151 59 01 53 78 kai.spacil@triflex.de

#### **Robin Thoss**



+49 160 94 46 97 96 robin.thoss@triflex.de

#### Michael Klein



+49 171 2 95 06 46 michael.klein@triflex.de

#### **Dirk Schwulera**

+49 175 9 94 81 56 dirk.schwulera@triflex.de

## Bernd Fuhlendorf



+49 170 7 68 85 92 bernd.fuhlendorf@triflex.de

#### **Torsten Meyer**

**Tobias Reichling** 

**Michael Fuchs** 



+49 151 40 41 92 64

+49 151 64 96 15 91

+49 160 4 00 53 51

michael.fuchs@triflex.de

tobias.reichling@triflex.de

#### **Marius Warm**



+49 151 4 71 54 52 marius.przywara@triflex.de

#### Steffen Pörschke



+49 160 1 66 69 35 steffen.poerschke@triflex.de

#### Patrick von Mengden



+49 175 5 88 23 70 patrick.vonmengden@triflex.de

#### Benjamin Göbel



+49 151 17 53 35 15 benjamin.goebel@triflex.de

Knowledge

145





torsten.meyer@triflex.de

## Triflex waterproofing and coating

## Instructions for use

## Austria

#### Order processing, technology, sales

#### **Doris Gierbl**



Order processing +43 7667 21505-20 doris.gierbl@triflex.at

Head of Technology

#### Ing. Norbert Hörner



+43 699 133 133 54 norbert.hoerner@triflex.at

## **Application Technology**

#### **Erich Schmid**



#### Application Technology West +43 664 884 103 37

erich.schmid@triflex.at

#### Patrick Erben



Application Technology East +43 664 884 103 37 patrick.erben@triflex.at



Villach

Klagenfurt

#### Area sales managers

Bregenz

#### Matthias Preizs



+43 664 619 95 36 matthias.preizs@triflex.at

#### **Roland Freinberger**



+43 664 884 103 36 roland.freinberger@triflex.at

## Alexander Egger-Riedmüller



146

+43 699 133 133 24 alexander.egger-riedmüller @triflex.at

## **Christian Politschar**



Martin Kastl

Head of Sales

+43 699 133 133 64

martin.kastl@triflex.at

+43 664 884 103 39 christian.politschar@triflex.at

**AT 3** 

**Christian Politschar** 

AT 3 Carinthia/East Tyrol

#### **Thomas Gabauer**



+43 664 884 103 34 thomas.gabauer@triflex.at

#### Marco Hofer

Graz

Thomas Gabauer

AT 6 Styria



+43 660 276 504 1 marco.hofer@triflex.at

**Matthias Preizs** 

AT 1 Burgenland /

Lower Austria



## **Technical Hotline**

Monday to Thursday: 8:00 a.m.-4:30 p.m. Friday 8:00 a.m.-2:00 p.m.

#### +43 7667 21505

info@triflex.at

Triflex Instructions for use 08/2023

Triflex waterproofing and coating





#### International

Triflex GmbH & Co. KG Karlstrasse 59 32423 Minden | Germany Fon +49 571 38780-708 international@triflex.com www.triflex.com

